BEFORE THE PUBLIC UTILITIES COMMISSION

OF THE STATE OF HAWAII

In the Matter of the Application of	)	
	)	
PUBLIC UTILITIES COMMISSION	)	DOCKET NO. 2008-0273
	)	
Instituting a Proceeding to Investigate the Implementation of Feed-in Tariffs.	)	
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THE SOLAR ALLIANCE'S AND HAWAII SOLAR ENERGY ASSOCIATION'S REPLY BRIEF

AND

CERTIFICATE OF SERVICE

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THE SOLAR ALLIANCE'S AND HAWAII SOLAR ENERGY ASSOCIATION'S
REPLY BRIEF

TO THE HONORABLE PUBLIC UTILITIES COMMISSION OF THE STATE OF HAWAII:

Pursuant to the Hawaii Public Utilities Commission's (the "Commission") Order Granting The County Of Hawaii's Motion For Approval To Amend its Status As An Intervenor To A Participant, Filed On April 8, 2009; Granting The City And County Of Honolulu's Motion For Approval To Amend its Status As An Intervenor To A Participant, Filed On April 8, 2009; Amending Hawaii Holdings, LLC, Doing Business As First Wind And Sempra Generation's Status As Intervenors To Participants; And Amending The Schedule In This Proceedings, filed herein on April 27, 2009, as Modified, The Solar Alliance ("SA") and Hawaii Solar Energy Association ("HSEA") (herein after jointly referred to as "SA/HSEA") hereby submits to the Commission its Reply Brief.

I. Introduction.

This Investigation was opened by the Commission pursuant to a Comprehensive Energy Agreement that was entered into by the Governor of the State of Hawaii, the State of Hawaii Department of Business, Economic Development and Tourism ("DBEDT"), the State of Hawaii

Division of Consumer Advocacy of the Department of the Commerce and Consumer Affairs ("CA") and the HECO Companies. According to the signatories to the Energy Agreement, the Energy Agreement was designed to move the State away from its dependence on imported fossil fuels for electricity and ground transportation, toward indigenously produced renewable energy and an ethic of energy efficiency.

As part of the Agreement, the HECO Companies committed to implement feed-in tariffs to dramatically accelerate the addition of renewable energy from new sources and to encourage increased development of alternative energy projects.

SA/HSEA are strong supporters of moving the State away from its dependence on imported fossil fuels for electricity and has for years promoted the use of renewable photovoltaic ("PV") energy in Hawaii because of its many benefits to the State's environment and economy. SA/HSEA believes that PV technology is a natural fit for FIT. PV is a proven track record in the State of Hawaii and whose project sizes lend themselves to the use of standardized energy rates and power purchase contracting.

In this proceeding the Commission is tasked with the monumental task of determining the best design for a FIT that support the goals of the Hawaii Clean Energy Initiative and also ensuring that ratepayers will get reliable energy at a just and reasonable rate. SA/HSEA hopes that its participation in this proceeding has assisted the Commission by providing evidence that shows that with PV as an eligible technology in the FIT program, the Commission is able to meet all of its goals. PV is truly a renewable technology that is "shovel ready" for FIT.

2. PV is "shovel ready" for Feed-in Tariffs in Hawaii and in achieving Hawaii's renewable energy goal as articulated in the Hawaii Clean Energy Initiative.

SA/HSEA will acknowledge that for many of the technologies that are being proposed to be eligible for Feed-in Tariffs ("FIT") there are unanswered questions as to their viability in the

Hawaii market and whether FIT is an appropriate procurement method for them. For others, this is not the case. In particular, PV has a proven track record in the State of Hawaii and its project sizes lend themselves to the use of standardized energy rates and power purchase contracting. During the Panel Hearing, Moderator Hempling acknowledged that, "There's nobody that disagrees that solar PV should be included in the FIT, right? Okay."[1] Moreover, as stated in our Opening Brief, during the Panel Hearing Moderator Adam Pollock acknowledged that, "clearly PV is the most developed of the relatively small in size technologies"[2]

Thus, even though there are still some unanswered questions in regards to some technologies, the Commission should not cause such uncertainties to prevent it from starting the FIT program for technologies such as PV. The Hawaii market is ready and willing to accept PV as an alternative to the use of fossil fuels. However, this proceeding and HECO's proposed pilot PV Host application have created confusion and uncertainty in the market. Therefore, if the State of Hawaii and the Commission are truly committed to moving the State away from its dependence on imported fossil fuels for electricity and toward indigenously produced renewable energy, SA/HSEA respectfully propose that it expeditiously implement a FIT program at least for PV and other technologies that are ready to go now.

3. Raising the Capacity Cap for FIT Generators to 5MW on the HECO System Would Not Adversely Affect System Reliability.

No evidence has been presented on the Record by any party to show that raising the capacity cap for FIT generators to 5MW on the HECO System would adversely affect system reliability. HECO Companies/CA's allegation in their Opening Brief that increasing the proposed limit to the HECO system to 5MW "would result in the potential generation on a circuit being almost twice the amount of the corresponding load on that circuit which would

[1] Tr. Vol.II at 94, lines 5-7.
[2] Tr. Vol. V at 111, lines 4-5.

require modification to the protection schemes and voltage regulating equipment on those circuit"[3] fails to distinguish between its distribution level and transmission level circuits.

Moreover, during the Panel Hearing HECO "admitted that the utilities do not have quantitative reliability goals or security criteria that they use in establishing their proposed project size eligibility limits."[4]

> The common theme of the HECO responses to the questions on the reliability standards and/or physical limitations of the system was that the information is not quantifiable.. . .As a matter of fact, when queried by the facilitator during the hearing, the HECO witnesses where not even able to define what they meant by "reliability", used by the HECO Companies as the basis for their limited proposal in terms of project size. Furthermore, the HECO Companies were also unable to provide the "reliability goals or standards" that they had in mind and supposedly used as the basis for developing the eligibility limits in terms of project size. . ..[5]

On the other hand SA/HSEA has provided clear evidence that adding more PV to the utility system will have a positive impact on the utility's system grid.[6] As stated in SA/HSEA's Opening Brief, "Numerous Hawaii studies have concluded that PV invertors positively contribute to the feeder voltage regulation and result in an improved voltage profile. Studies conducted elsewhere indicate that **at higher penetration levels, PV invertors actually provide feeder voltage support.**"[7]

SA/HSEA's proposal to set the capacity size up to 5MW on the HECO system is prudent because: (i) it will cover the current void between NEM limits and the minimum size threshold for the Competitive Bidding framework, (ii) it will rationalize, standardize, and make transparent the procurement process for projects larger that 100 kW and smaller than 5 MW, and (iii) is large enough to make a meaningful impact to the renewable market by drawing more PV developers.[8]

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[3] HECO Companies/CA's Opening Brief at 29.
[4] DBEDT's Opening Brief at 45, citing Tr. Vol. 1 at 178-179; see also, Tr. Vol. 1 atr 206, lines 19-21.
[5] DBEDT's Opening Brief at 46, citing Tr. Vol. 1 at 182-189; 197-207.
[6] SA/HSEA's Opening Brief at 7.
[7] SA/HSEA's Opening Brief at 8 (emphasis added)(footnote omitted).
[8] SA/HSEA's Opening Brief at 8. SA/HSEA's proposal is also aligned with the proposals of The Department of

Furthermore, DBEDT with its vast experience on energy issues in the State of Hawaii and in its role as a signatory to the Energy Agreement has stated that 5MW for the HECO system is nominal and highly unlikely to affect system reliability.[9]

4. There is Clear and Convincing Evidence on the Record to Establish Appropriate Pricing for Renewable Projects Up to the 5MW Threshold.

The HECO Companies and CA in their Opening Brief states,

> HECO supports the notion that a FIT can be established for larger projects of certain technologies on Oahu, perhaps up to the 5 MW threshold for the Framework for Competitive Bidding. Before establishing such a FIT, however, one must establish appropriate energy pricing for such projects and address interconnection requirements, as projects of this size have not heretofore been developed in Hawaii.[10]

HECO is correct when it states that projects of this size have not been developed in Hawaii, but what HECO fails to state is that they do have cost information for projects of this size. Such information was provided to the HECO Companies in response to its Request for Proposal for its proposed 100MW project and ironically, the HECO Companies also provided such information in its PV Host Pilot Program Application.[11]

Additionally, the Record will clearly indicate that SA/HSEA has provided in this proceeding two creditable alternatives for setting the rates for PV projects under the FIT. First, SA/HSEA proposed actual rates for PV projects under the FIT. These rates came from ten actual PV projects that were developed in Hawaii at the end of 2008.[12] Alternatively, SA/HSEA proposed that the rates be based on industry standard data adjusted for the cost of doing business in Hawaii and building in an allowable level of profit.[13] Thus, SA/HSEA respectfully submits

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Business, Economic Development and Tourism ("DBEDT") and Hawaii Renewable Energy Alliance ("HREA"). See, DBEDT's Opening Brief at 54 and HREA's Opening Brief at 12.

[9] DBEDT's Opening Brief at 56.

[10] HECO Companies/CA's Opening Brief at 40-41.

[11] Commission Docket No. 2009-0098.

[12] SA/HSEA's Opening Brief at 10.

[13] SA/HSEA's Opening Brief at 11. SA/HSEA would support the use of costs data derived from the Lawrence

that there is ample evidence in the Record for the Commission to develop just and reasonable FIT rates for PV projects up to 5MW. HECO's suggestion for "conducting a competitive solicitation"[14] is not necessary and will only further delay meeting the goals of the Comprehensive Energy Agreement to move the State away from its dependence on imported fossil fuels and towards indigenously produced renewable energy.

5. The HECO Companies proposed PV Host Pilot Program is Premature.

Although the HECO Companies have filed a separate application for its proposed PV Host Pilot Program[15], in their Joint Opening Brief the HECO Companies and the Consumer Advocate ("CA") attempts to promote their application by stating:

> The HECO Companies believe the proposed PV Host Program – developing numerous PV projects larger than the proposed initial FIT through a competitive procurement process – will serve this need for PV projects up to 1MW in size and can support the establishment of a FIT for larger PC projects in the first FIT update, two years after initial FIT implementation. If such a FIT is established for PV projects of the same size as that targeted in the PV Host program, the HECO Companies, in their review of the PV Host program towards the end of the two year pilot, would consider whether it is necessary to continue the PV Host program beyond the pilot[16]

Thus, although SA/HSEA believes that the appropriate forum to examine the merits, if any, of the HECO Companies proposed PV Host Pilot Program is in Commission Docket No. 2009-0098 it feels compelled to reply to the HECO Companies and CA's attempt to promote it in its Opening Brief in this proceeding. SA/HSEA believes that the HECO Companies and the CA have put "the cart before the horse". Instead of proposing a PV Host Pilot Program, the HECO Companies and the CA should give FIT a chance. During the first FIT update the stakeholders and the Commission can examine whether the proposed PV Host Pilot Program should be

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Berkeley National Laboratory Report. See, SA/HSEA's Opening Brief at 11.

[14] See, HECO Companies/CA's Opening Brief at 41.

[15] See Commission Docket No. 2009-0098.

[16] See Opening Brief of the HECO Companies and the Consumer Advocate at 18.

considered.

As discussed in Section 4, above, the Record will clearly indicate that SA/HSEA has previously submitted into the Record two alternatives for setting the rates for PV projects under the FIT. First, SA/HSEA proposed actual rates for PV projects under the FIT. Alternatively, SA/HSEA proposed that the rates be based on industry standard data adjusted for the cost of doing business in Hawaii and building in an allowable level of profit. Thus, SA/HSEA respectfully submits that there is ample evidence in the Record for the Commission to develop just and reasonable FIT rates for PV projects up to 1MW, or larger[17], and, thus, there is no reason to delay the establishment of FIT for larger PV projects in the FIT and under current circumstances HECO's proposed PV Host Pilot Program is premature. Like HECO's proposal for "conducting a competitive solicitation"[18] their proposed PV Host Pilot Program is not necessary at this time and will only further delay meeting the goals of the Comprehensive Energy Agreement to move the State away from its dependence on imported fossil fuels and towards indigenously produced renewable energy.

6. Allocation of Interconnection Costs under HECO's Rule 14H.

In their Opening Briefs both SA/HSEA and HECO/CA submitted proposals on how interconnection costs should be allocated between the utility and the developer.[19] A review of the two proposals shows that it is not an "apples to apples" comparison, but that there are clear

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[17] Under SA/HSEA proposal, PV projects would have a capacity size up to 5MW for Oahu, and up to 2.75MW for the Big Island and Maui under the FIT program. SA/HSEA offered these capacity size limits because: (i) it provides a compromise between the capacity size offered by HECO/CA and various intervenors during the Panel Hearing; (ii) most importantly it will cover the current void between NEM limits and the minimum size threshold for the Competitive Bidding Framework; and (iii) it is larger enough to make a meaningful impact to the renewable energy market by drawing more PV developers.

[18] HECO Companies/CA's Opening Brief at 41.

[19] SA/HSEA's Opening Brief at 16-19 and HECO/CA's Opening Brief at 60-62. See also, DBEDT's Opening Brief at 84. .

disagreements as to who should pay for some of the interconnection cost.

SA/HSEA concurs with DBEDT "that the costs of interconnection requirements on the utility side of the interconnection point should be borne by the utilities, and the costs of the interconnection requirements on the project side of the interconnection point should be borne by the project developer."[20] Stated another way, if something is done that will upgrade the utilities system or the utility will own and control the asset, the cost should be borne by the utility. Also, "[r]ather than 'one rule fits all', some elements of the FiTs interconnection rules, standards, and procedures may differ depending on the project size."[21] Based on these principles, SA/HSEA Three Tier proposal advocates, inter alia, the following:

- That all Utility substation cost be borne by the Utility;
- That all costs related to SCADA, control system and curtailment system specific to the project should be borne by the Utility for projects in the Tier 1 and 2 range, with the Developer bearing the cost for projects in the Tier 3 range.[22]
- That all costs related to system and feeder studies and technology verification studies performed by the utility should be borne by the utility; and

7. Conclusion.

This proceeding to date, has shown that there are many issues that must be addressed in the Commission's determination of the best design for a FIT and also assuring that ratepayers will get reliable energy at a just and reasonable rate. Although there are many issues that need to

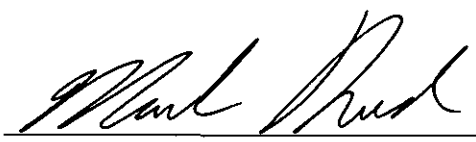
[20] DBEDT's Opening Brief at 84.
[21] DBEDT's Opening Brief at 80.
[22] Under SA/HSEA's proposal Tier 1 is for projects between 1-500 kW on Oahu, 1-250 kW on Maui and Hawaii, and 1-100 kW on Lanai and Molokai; Tier 2 is for projects between 501-1000 kW on Oahu, 251-500 kW on Maui and Hawaii, and 101-250 kW on Lanai and Molokai; and Tier 3 is for projects between 1001-5000 kW on Oahu, 501-2750 kW on Maui and Hawaii, and 251-500 kW on Lanai and Molokai.

be answered, SA/HSEA's position is that the evidence clearly shows that PV technology is part of a best design for a FIT. In the long term, PV power provides the ratepayers with lower rates and has been proven to have a positive impact on the utility's system's grid.

Like the majority of the intervenors in this proceeding, SA/HSEA began this proceeding wanting to put in as much renewable energy on the HECO Companies' grid as quickly as possible and advocated for either no caps or very high caps. SA/HSEA still would like to have as much renewable energy on the HECO Companies' grid as quickly as possible, but it now understands that before this can happen the HECO Companies must proactively focus on immediate and ongoing grid improvements. These improvements, however, should not delay the FIT program when you have technologies such as PV that have proven track records in Hawaii that can accomplish the benefits of the FIT as articulated in the Energy Agreement. These improvements also should not delay the deployment of more renewable energy in Hawaii when you have ongoing programs like NEM that is working and technologies like PV that provide a good starting point for the initiation of a successful and properly implemented FIT program.

Respectfully submitted.

DATED: Honolulu, Hawaii, June 26, 2009



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Respectfully submitted.

DATED: Honolulu, Hawaii, 2009.

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